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	Millimètres.	
Greatest length .....	176	
„ breadth.....	142	(Not quite certain, on account of
Proportion of the two measuremts. 100 : 80·4		imperfect state of one side.)
Frontal breadth .....	100	
Frontal arc .....	128	
Sagittal suture .....	122	
Occipital arc.....	114	
Perpendicular circumference .....	364	

These measurements agree exactly with the average computed by me from four Ligurian skulls.

I must finally add, that the hope expressed above of further artistic finds of the reindeer period has been fulfilled by the discovery in the grotto of Arcy, by Lartet and Vibraye, of engravings on bones, representing a hairy long-maned elephant, *i.e.* the mammoth. The engraving on ivory, in the possession of M. Lartet, shows so characteristically all the characters of the elephant, as to admit of no doubt that the artist who engraved it must have taken a living mammoth for his model.

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## PROCEEDINGS OF THE PARIS ANTHROPOLOGICAL SOCIETY.\*

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January 19, 1865.—M. Broca presents to the Society several crania found at Maintenon, and in tumuli of Meloisy (Côte-d'Or). M. Martin de Moussy observed that the extraordinary thickness of cranium No. 2 of Meloisy reminded him of a passage in Herodotus, who relates that after a battle of the Persians with the Egyptians the crania of the latter were found to be very thick compared with those of the Persians, which were thin. Herodotus attributes this to the circumstance that the Persians covered the head whilst the Egyptians were in the habit of going bareheaded in the sun.

M. Pruner-Bey considered this theory as purely imaginary, as the thickness of the skull depended on race. The present Egyptians, who covered the head, possessed crania as thick as their ancestors, whilst modern Hindoos, who expose the head to the burning rays of the sun, had skulls as thin as the Persians, who are of the same race.

*Mummification of the Brain.*—M. Broca presents several cerebral hemispheres mummified for four years, and hard as pasteboard. These brains, the weight and volume of which is considerably reduced, have well preserved their form, and are more suitable for the study of

\* Continued from No. XVII, p. 239.

the convolutions than fresh brains. Although the process might be applied to the whole brain it is better to separate the hemispheres in order better to examine the internal surface of the hemispheres. The pia mater being removed, the hemispheres are plunged into a bath composed of five parts water and one part nitric acid. At the end of two days the quantity of acid is doubled; the brains are removed after two days more, when they are found to be sufficiently hard, having lost about one-fourth of their weight. They are then drained on rags, which must be renewed twice or thrice the first day. Next day they are sufficiently dry, so as no longer to wet the fingers; they are then exposed to a current of air on a board in a dry place in a temperature of 20° to 25° cent. The superficial convolutions become brown within five or six days. At the end of twelve or fifteen days the brains are sufficiently solid to yield a sound when struck, nor will they break in falling. They should, however, be exposed to the air for another month, as they exhale acid vapours which stain the linen or paper in which they are wrapped. This process of mummifying is exceedingly simple, requiring little care, and not attended with expense. Brains thus prepared may be carried about in the pocket. They may be sent off without careful packing, and are well adapted for the study of the convolutions. M. Broca thought it would be useful to recommend this process in the general instructions about to be given to travellers, and specially to physicians settled among foreign races. He had tried other processes of mummification, but all have the inconvenience of considerably altering the form of the brain.

M. Pruner-Bey presents an ancient cranium from Sicily sent by M. Furuari, of Palermo, found in the environs of Castelveirand, province of Trapani; and a cranium of the cavern of Larzac (Avignon).

M. Bonté complained that his paper "On the Classification of the Aryan Races," as it appears in the *Bulletins* of 1864, had been disfigured in an extraordinary manner, and that M. Pruner-Bey had altered some portions of the text, and had omitted several words which rendered the text intelligible. In justification of his assertion, M. Bonté quoted at length many passages of his paper, which had been so altered, and commented upon by M. Pruner-Bey, and contended that his views, as expressed in his dissertation, had not been shaken.

*On the mode by which the Pelvis should be measured.*—M. Alix said that in order that the different diameters of the pelvis, as given by different authors should be comparable, it is necessary that the measurements be taken from identical and well-determined points, which hitherto had not been rigorously pointed out. It might be said that this rigour exists as regards the antero-posterior diameter, called also

sacro-pubic, and the oblique diameters between the ileo-pectineal eminence and the sacro-iliac symphysis. But it is immediately seen that it does not apply to the transverse diameter. All authors say only that this diameter is drawn transversely between the inferior limit of the internal iliac fossa on one side and the inferior limit of the external iliac fossa of the opposite side. But this limit being a line composed of a number of indefinite points, the expression is extremely vague. In order properly to determine the transverse diameter, it is necessary to know the position of its extremities in relation to the following points: the sacro-iliac symphysis, the ileo-pectineal eminence, the anterior and inferior iliac spine, and also the anterior and superior iliac spine. It is impossible to compare measurements of transverse diameters, the position of which has not been determined in relation to at least one of these four points. In order to appreciate the curve of the arch formed by the pubis, the only means is to know the length of the perpendicular drawn from the symphysis pubis upon a transverse line passing through the ileo-pectineal eminences. As regards the antero-posterior diameter, the usual expression is only apparently exact. For the curved line which limits laterally the superior strait, does not always join the superior border of the body of the first sacral vertebra. This line reaches the sacrum in a point which corresponds with the union of the lateral masses of the two first vertebræ of this region. It is continued upon the lateral mass of the first of these vertebræ; but the root of this lateral mass is frequently placed at some distance below the superior border of the vertebral body. It is therefore necessary to say whether the antero-posterior diameter unites the symphysis pubis with the superior border of the vertebral body, or with an inferior border, or with an intermediate point. And so for every oblique diameter parting from the ileo-pectineal eminence to reach the sacro-iliac symphysis, it is useful to designate the precise point of the sacro-iliac symphysis through which it passes, and to say, for instance, whether that is the point which corresponds with the suture of the transverse masses of the two first sacral vertebræ, or whether it be some other point. These observations are not applicable to measurements of the inferior strait, for which most authors give fixed and well-determined points.

M. Lagneau said that the permanent Committee on the ethnography of France, appointed by the Anthropological Society, having met, considered that it would be advantageous to enter into scientific relations with the Archæological and Statistical Societies. The Committee on the ethnography of France is now composed of the following members: for statistics—MM. Boudin, Berlillen, and de Ranse; for archæology—MM. Bertrand, Leguay, and Morpain; for ethno-

graphy and anthropology—MM. Périer, Broca, P. de Remusat, and Lagneau ; for geography—M. Barbié du Bocage.

*Description of the Cranium of an Ancient German.* By M. Schaaffhausen ; translated by M. Pruner-Bey.—This cranium was found this year near *Nieder-Ingelheim*, associated with stone weapons and pottery mostly unburnt. It seems to belong to ancient Germany. The use of stone weapons and implements did not immediately cease on the introduction of metals ; but continued for several centuries after, as proved by documentary evidence. As, nevertheless, Roman civilisation spread on the Rhine at an early period, we must ascribe to this cranium a high antiquity. On clearing a forest of firs near the ancient bed of the Rhine, about twenty-five feet above the present level, and about a mile from the bank, several graves were discovered. Although scarcely any other bones have been collected on account of their fragility, this cranium is nearly complete.\* It corresponds to the portrait which, according to the description of Tacitus, we may imagine of the ancient Germans. A similar discovery made near *Lippstadt*, in Westphalia, has been communicated by me to the Society of the Lower Rhine in August, 1859. This cranium, though of an inferior type, has nevertheless nothing of the ignoble. It presents much harmony joined with vigour, and a certain degree of beauty. It resembles the Enghis skull, which has given rise to so many discussions. Still the forehead of the latter has a better conformation ; its occipital squama is more prominent, and the summit presents a less ogive form. In both crania, however, the projection of the parietal protuberances gives to the occiput a pentagonal form. The German cranium has a length of 185·5 *mm.*, and a breadth of 135·5 *mm.* That of Enghis is nearly as wide and 8 *mm.* longer, if we deduct from the cast 3 to 4 *mm.* In both crania the greatest width is at the parietal protuberances. After giving a minute description of this skull, M. Schaaffhausen draws attention to certain furrows which are seen ramifying on the surface of the cranium. These he attributed to the action of some acid contained in the roots of vegetables, on the lime of the bones. . . . The two stone utensils found in the grave are well polished, and, what is rare, the stones belong to the country. The small hatchet is of schist from the Taunus, whilst the other implement, eight inches long, is made of a Greywake schist. One of its surfaces is flat, the other rounded, and one end forms an edged curve. . . .

M. Broca observed that M. Schaaffhausen's paper raised a question which he had long tried to solve, namely the origin of the innumerable

\* Several data lead to the presumption that inhumation was practised by the ancient Germans, as well as cremation.

superficial small grooves found upon bones long buried in the soil. He showed several crania from the graves of Chamant and Mont-Berny, upon which these furrows were well marked. He recollected that about fifteen years ago an observer, whose name he forgot, attributed these grooves to the action of a small insect. He provisionally accepted this explanation, until he found that small filaments of roots were frequently attached to some grooves, when he was led, like M. Schaaffhausen, to assume that the furrows were caused by the action of the roots. He had, however, still doubts on the subject, for the roots left no traces upon the calcareous stones found in the sepulchre of Chamant along with the bones. Now, either the roots act on the bones by pressure, and then they should also erode and furrow the surface of the stones, the hardness of which is inferior to that of the bones, or they acted chemically by their acid, then they should decompose the carbonate of free lime of the chalk.

M. Jouvenal observed that it is not upon the carbonate of lime, but on the phosphate of lime, that the acids of the roots of vegetables acted; many plants, especially the gramineous, absorb in the soil phosphoric acid, and hence acquire the property of decomposing the phosphates. The comparison, therefore, of M. Broca between the furrowed bones and the non-furrowed calcareous stones does not militate against the explanation given by M. Schaaffhausen.

After some further discussion, in which MM. Jouvenal, Sansen, and Broca took part, the meeting adjourned.

April 6, 1865.—*On the Age of Polished Stones in the Caverns of the Ariège, Pyrenees.* By MM. Filhol and Garrigou.—M. Filhol read a memoir on the above subject, of which the following is an abstract:—

“Twelve caverns have furnished to the authors the materials necessary for determining the period. The authors have successively studied the races of animals then existing, the implements fabricated of the bones of these animals, the pottery, and the stone implements which were found in the hearths. With respect to the race of the inhabitants of these caverns, the authors, adopting the views of M. Pruner-Bey, the learned President of the Society, consider them a brachycephalic race, in whom the Turanian face predominates over the Aryan face. This race is allied to the inhabitants of the shores of the Mediterranean and the Swiss lakes. It must, in time, have preceded the Aryan race, since it has left its traces in the deluvium. From the ensemble of the facts, including the same fauna, the identity of habits, industry, and civilisation, the authors are led to conclude that the period corresponds with the age of polished stone and that of the Swiss lake habitations.”

M. Bertillon presents to the Society a treatise “On the Mean Duration of Life,” which is to be inserted in the *Mémoires*.

April 20, 1865.—The Secretary read a letter from M. de Khanikof, on the relative proportions of the cranial diameters, confirming to some extent the researches of M. Gaussin.

M. Rougou presents to the Society a cranium of the Gallo-Roman period, found at St. German, near Corbeil. It is very dolichocephalic, and presents at the occipital part a well-marked protuberance.

*Crania from Annecy (Savoy).*—M. Mortillet, in presenting to the Society four crania from Annecy, said: "There existed formerly in that city a convent of nuns of the order of St. Clara. During the French Revolution, this convent was converted into a manufactory. Some years since, on repairing the church, there were discovered a great number of graves. Happening to be on the spot, I contrived to secure eight crania, all of which presented the brachycephalic form. Seven of these crania belonged to nuns; the eighth cranium belonged to a male, probably to the almoner of the convent. The Convent of St. Clara was a retreat for poor girls, which makes these crania more valuable, as they present the pure type of the country, uninfluenced by intermixture, which always more or less obtains in the higher classes. I have shown these crania to our learned President, M. Pruner-Bey, who will give you the results of his examination."

M. Pruner-Bey accordingly favoured the Society with a detailed account of the anatomical characters of these four crania, and their measurements. These crania, continued M. Pruner-Bey, excepting No. 4, belonged to aged females; they are brachycephalic, and, for female crania, rather voluminous. The whole type differed considerably both from the Aryan and the Negro type. In his opinion, it represented the *Mongol* type of naturalists, or the *Turanian* of linguists. It is, therefore, not astonishing that Finnish, Lap, and Calmuck characters are presented in these crania. . . . There now only remains the question, To what people belonged this cranial type, considered from a geographical, historical, and palæontological standpoint? With respect to the first two points, he would unhesitatingly answer that it is the cranium of the *Ligurians*, which is clearly established by the researches of M. Nicolucci.\* History teaches the high antiquity of this race, and anatomy attests the permanence of its type. Piedmont, and specially Savoy, contains amongst its inhabitants numerous representatives of this race. If it be permitted to establish a deduction from cranial characters the same type existed also in France in remote times. Such crania have, in fact, been discovered by the Duke de Luynes in the vicinity of the Uyères. M. Garrigou has found in the caverns of Ariège two faces representing in the nasal parts all the exaggerations of this type. He (M. Pruner-Bey) also had in his own

\* *La Stirpe Ligure en Italia ne tempi Antichi e Moderni*, etc. Napoli, 1864.

possession numerous cranial fragments taken from tumuli at Poitou, all denoting the existence of the same type by the side of the Celtic. . . . He (M. Pruner-Bey) did not think he was far out by assigning this cranial type to a period anterior to the polished stone-age, namely to the reindeer epoch. . . . Finally, in order at once to perceive the difference between the Ligurian and the Celtic cranium, it was only necessary to throw a glance at the cranium presented by M. Rougon when placed side by side with the Savoy crania on the table; there is the Celtic type, and here the Ligurian type.

M. Alix defended at great length the late Dr. Gratiolet against the attacks made upon that eminent writer by M. Vogt in his *Lectures on Man*. In conclusion, he requested that such as are about to peruse the works of M. Vogt should not neglect to read also the works of M. Gratiolet, and then they would arrive at the conclusion that not only was M. Gratiolet an elegant writer, but one of the most profound thinkers of our age.

M. de Mortillet observed that although the French edition was published after M. Gratiolet's death, it was ready before that event took place. M. Vogt, before publishing his work, consulted two friends as to the propriety of leaving or expunging certain passages in the preface to the French edition. I, continued M. Mortillet, was one of these two friends, and we both expressed our opinion that M. Vogt need have no scruples on that account. The blame, if any, therefore, partly attaches to us, and I, for my part, am ready to take the responsibility for that advice on my own shoulders.

May 4th, 1865.—M. Broca presents to the Society bones, and marine and freshwater shells which he had extracted from a grotto about two kilomètres from Menton (*Alpes maritimes*), in the territory of Ancient Liguria. This grotto, situate on the sea-shore on the flank of a slope, which is difficult of access, had already been explored to a considerable extent by M. Faurel. It contains a considerable quantity of bones, bearing some analogy to the kitchen refuse of Denmark. These bones are split open, evidently for the sake of the marrow. From the walls was, by means of a hammer, detached a solid and compact gangue, which contained osseous fragments and shells, also fragments of apparently worked flints. M. Broca was of opinion that this grotto served as a place of refuge where the meals could be dispatched in comparative security.

M. Martin presents, in the name of M. Perier, absent from indisposition, 1, Head of an Egyptian mummy; 2, Head of an Arab, preserved by mercury and solar desiccation; and 3, Fragments of a cranium recently found near the village *Chazay d'Azergues*, canton *d'Anse* (Rhône).



M. Pruner-Bey, in placing upon the table Dr. Thurnam's treatise "On the two principal forms of Ancient British and Gaulish skulls," said, I ask permission to add a French literal translation of that part of the memoir which interests us most, namely, the craniology of the ancient Gauls and the conclusions arrived at by the author. Having taken an active part in the discussion, I purpose recurring to it when my craniometric tables and my communication on the cranial types of the Ligurians are printed.

M. Alix read a report on a memoir by Dr. Hermann Wagner, "On the measurements of the surface of the cerebrum."

*On the pretended Asiatic origin of Europeans.* By M. Omalius d'Halloy.—The author asked permission once more to return to this subject, inasmuch as his opinions had been partially misrepresented. The discussion to which his questions gave rise proved satisfactory to him from two points of view. In the first place it was recognised, that when the peoples supposed to be Asiatic entered Europe, they found it already inhabited; secondly, no historic documents were produced proving the Asiatic origin of European nations speaking the so-called Aryan languages, and that in favour of such an origin there were only invoked some linguistic, etymological, and mythical considerations. He had not much confidence in the decisions of linguists as regards the filiation of languages. . . . . Had the ancestors of the Europeans known how to write there would probably have been found another language from which our own are derived, so that instead of their being the daughters of the Zend, the granddaughters of the Vedic, and the nieces of the Sanscrit, they would only prove to be very distant relations. . . . . He would add that he was induced to believe that more probably Europeans, still in a barbarian state, had introduced their language into Bactria, were they gradually became sufficiently civilised to write the Vedas, than to assume that civilised peoples of Bactria had entered Europe and lost their civilisation to such a degree that at the time of Tacitus neither the Germans nor Slavonians knew how to write. Another point favourable to his view is the admission that the fair type is not foreign to the Aryans, and he considered that it is more probable that this type, now so abundant in Europe, was developed there. He attached little importance to etymological and mythical relations, as the resemblances are frequently forced. He would also add that the absence of any allusion in European mythologies, to elephants and camels, was counter to the idea of an Asiatic origin. He did not say, as he is represented, that the Asiatics had an European origin. In the present state of our knowledge, we had no certain notion regarding the first distribution of peoples. He merely contended that the so-called *Aryan* language had

been imported into Asia from Europe, which does not necessarily imply that the Persians and Hindoos are of European origin, just as little as it can be pretended that the Spaniards, French, and the Wallachians are of Roman origin because they speak languages imported by the Romans. . . . . To be strictly logical, the name of Europeans should be restricted to peoples of fair complexion ; such a pretension would, however, considering the intermixtures that had taken place, lead to absurdities. Anthropological researches, no doubt, have for their object to trace the elements which concurred in the formation of individuals, but an ethnographical classification must accept conditions as we find them. No classification can refuse the name of French to the French-speaking populations of the South and North of France, under the pretext that the Iberian blood predominates in the one and the Teutonic blood in the other branch. . . . . As regards another question, he is of opinion that the languages spoken by the Erso-Kymris are wrongly called Celtic ; he believed that the Celts were people with light hair, who vanquished in the West and South of Europe the black-haired peoples. In this he was powerfully supported by Renard and Holzmänn, who sustained that the Celts and Germans were identical. It is now pretty generally admitted that the Gaelic and Kymric languages spoken by the Irish, Scotch Highlanders, Welsh and *Bas-Bretons*, are the representatives of languages formerly spoken by the inhabitants of France and the British Isles. But there exists a divergence as regards the relations of these peoples with the Celts, and the natural group to which they belong.

Amédée Thierry and his followers think that the Celts and Gaëls are identical, and that both belong to the black-haired type, and the Kymris, who arrived later, belonged to the light-haired type. He (*Omalius d'Halloy*), on the contrary, was of opinion, that both the Gaëls and the Kymris were black-haired, and that they were vanquished by the Celts, a people or a confederation of peoples of fair complexion who spoke a Teutonic language. This theory accords better with the facts and historical notions, and disposes of the difficulty of supposing that so powerful a people as the Celts belonged to a family now only feebly represented in the extreme west of Europe. This explains, also, why the Greeks who knew of the conquests of the Celts, called all the Germans by that name.

That which has led to consider the Kymris as belonging to the light-haired type, is the resemblance of their name to that of *Cimbri*, a name given by the Romans to a northern people who, associated with Teutons, penetrated into the South of Europe, whence they were repulsed by Marius, people whom the Romans subsequently found again

in the vicinity of the Baltic. Nothing, however, proves that this people had any relations with the present Kymris, and it may be admitted, with Schayes and other authors, that it was a Germanic tribe, as is shown by their association with the Teutons. Speaking of classification, he would admit that the application of a single character leads to artificial results, and the colouration of the skin is a fugacious and varying character; still, he would sustain, that classifications founded on the colour of the skin, had not yielded such defective results as the cranial classification of Retzius, who placed the Negroes in his first class with the Germans, whilst he rejected the Slavonians from the second class. No member of the Society, he felt convinced, believed that there obtains a closer relation between the Negro and a German, than between a German and a Slavonian.

The most distinctive character of man, concluded M. Omalius, is his aptitude for civilisation, which must be taken into consideration in every classification. Now, it is remarkable that the coloured races have never reached the same degree of civilisation as have the whites, and that among the coloured races the least apt for forming regular states are generally the darkest in complexion. It must not be lost sight of that he spoke merely of *aptitude* for civilisation and not of the *state* of civilisation, which are two different things, the one being a natural character, resulting from organisation, the second resulting from social relations.

M. Liétard said that a complete reply to the interesting paper read by M. Omalius d'Halloy would be to re-open a discussion, which was foreign to his intention; he would, therefore, confine himself to answer a few arguments drawn by the honourable member from the variations in the opinions of scholars relative to the classification and filiation of the Indo-European languages. And first, as regards the Sanscrit. No one now maintains that it is the mother language of Indo-European idioms. This idea is a popular error; the philologist knows that the Sanscrit, Greek, Latin, and other languages, are branches belonging to a common trunk. But what is this common trunk? In this respect there is another error current, namely, that the Vedic Sanscrit, or rather the Vedic language as it is called, is considered as the mother of Indo-European idioms. The truth is, that the language of the Vedas is merely the ancient Sanscrit, so that between the language of the Vedas and the classical Sanscrit there is perhaps less difference than between the French of Rabelais and that of Voltaire. The primitive language of the Aryans, the real ancestor of the Japhetic language, is not represented by any literary document; nevertheless its reconstitution by means of comparative grammar and philology is relatively easy, for it may be obtained by a strict appli-

cation of a series of phenic laws now clearly determined. After the Zend, the filiation of which is now known, we find in chronological order the *Persian*, or the cuneiform inscriptions of Persepolis ; then the *Pehlwi*, characterised by numerous expressions borrowed from the Semitic languages ; this language became subsequently more Aryan in the *Parsi*, a dialect very poor as regards literary remains, and which, by successive degenerations, became *modern Persian*.

May 18th, 1865.—M. A. Bertrand gave an account of the results obtained from excavations at *Saint-Etienne-au-Temple*, near Chalons, undertaken at the expense of the Emperor. A cemetery was discovered, dating back to at least two or three centuries before our era, in which were found Etruscan pottery, fire-arms, and bronze objects. At some distance were discovered about thirty Gallo-Roman graves. The skeletons were well preserved, and several crania will be submitted to the inspection of the Society.

M. Broca, who, with MM. Bertrand and de Saulcy, had assisted at the excavations of Saint-Etienne, placed upon the table three crania ; one a Gallo-Roman, and two Gaulish skulls. Hitherto, said M. Broca, there existed a vexatious blank in the anthropology of France. Our museums and collections contain a certain number of crania of the stone-age and also of the bronze-age, so as to admit of the study of prehistoric types, and also of the crania of the Gallo-Roman period. But, as regards the crania of the *Gaulish* epoch, comprised between the commencement of the iron-age and the subjection of Gaul by the Romans, these were almost unknown, for the crania marked Gaulish in the various collections are partly prehistoric or of an undetermined period. The gap may, perhaps, now be filled up.

A discussion having taken place as to the proper discrimination between the prehistoric, Celtic, and Gaulish periods, M. Broca replied that, in his opinion, the Gaulish period commenced at the time when the Gaulish peoples first came in contact with Italian civilisation, and that it finished with Julius Cæsar.

M. Nicolucci sends four photographs representing two ancient crania of the Ligurian type with a manuscript notice translated and read by M. Pruner-Bey.

The two crania are brachycephalic, and present the Ligurian form, which in prehistoric times must have obtained in the Italian peninsula. The cranium No. 1 seemed to have belonged to an adult man about thirty years of age ; No. 2 to a youth of about sixteen years old. Upon the first cranium is very distinctly seen in the frontal suture a peculiarity frequently met with in the ancient crania of the valley of the Pô. There is no trace of disease or artificial deformation in these two crania. Their antero-superior portion is well-developed, and the

forehead is elevated and in harmony with the face and the rest of the cranium. The cranium of the man is orthognathic, that of the youth slightly prognathic, a character very common both in the ancient and modern Ligurian stock. The brachycephaly of No. 2 is remarkable, the cephalic-index reaching 92·60. It is also noteworthy that the antero-posterior diameter is in these crania much shorter than that seen in other ancient crania, whence M. Nicolucci inferred that their brachycephaly depended less on the extension of the transverse diameter than on the shortening of the longitudinal. A table of the principal measurements of these crania is added.

*Instability of Cross-breeds in the Ovine Species.* By M. Sanson.—M. Sanson said that he had often advanced that cross-breeds had no fixity, and after several generations necessarily returned to either of the primitive types which co-operated in forming them. He now had the pleasure to present to the Society aquarells painted from nature representing a certain number of individuals just exhibited at the Agricultural meeting of Versailles. Four of these animals are “Dishley-Merinos.” They consequently belong to a pretended fixed cross-breed, and are descended from several generations, the results of crossing between Merino ewes and the English ram of Dishley. A single glance at the drawings shows at once that two of these individuals have returned to the Merino type. The other two have returned to the Dishley type. . . . These facts, he submitted, were of importance also to anthropology, as they may explain many questions relating to the study of human races.

M. Roujou read a paper “On the beds of the polished stone-age near Villeneuve Saint George’s.”

June 1st, 1865.—*On Dutch Crania*, by M. Sasse of Zaardam (North Holland), translated by M. Pruner-Bey.—Anthropology is threatened by an error which seems to take root, relative to the cranial form of the Dutch, which is deemed to be essentially dolichocephalic. The cause of this seems to be, the comparison which has been established between the Neanderthal skull and that represented by Blumenbach as the cranium of a real Batavian (*Batavi genuini*).

I had the honour of presenting lately to your notice the results of some measurements of crania of North Holland, proving, as regards that province at least, the allegations to be incorrect. Moreover, the cranium delineated by Blumenbach (table lxiii) is exceptional just in those details which should establish the resemblance, namely, the great prominence of the superciliary arches, the recession of the forehead, which is low and flattened. Among the eighty crania of North Holland, there is only one presenting a slight approach to this form.

In the photographs I submit, reduced to one-fourth of the natural

size, you will not find that this type is well marked. Moreover, my celebrated teacher, M. Vrolik, has also published in his catalogue the measurement of five crania from the islands of Marken and Schokland,\* and observes that none of these crania resembles the cranium of the *Batavi genuini* represented by Blumenbach. For my part, I stoutly enter my protest against the idea that the Dutch are generally more dolichocephalic than other stocks of Germanic origin, as laid down by M. Vogt in his *Lectures on Man*. As regards the other crania, further researches are unnecessary.

I have taken much interest in the discussion in your Society relative to the Celtic question, which occupies the attention of the learned world. For my part I confess that I am inclined to think with Holzmann and Acker Strating, that the Celts, that is to say the fair-haired Gauls, were nothing but Germans. These nations cannot be distinguished except by language. Moreover, the Celtic language, especially the Kymric branch, presents many points of contact with the low German (Dutch) and low Saxon. Thus I find in Acker Strating, "Adelung (Mithridates) finds that in the Kymric of Wales nearly half the words are low German." Pelletier (*Dict. de la langue Bretonne*) entertains similar views. Finally, the Society for the literature and language of the Netherlands at Leyden possesses two vocabularies by M. Hoeft, on the concordance of Walloon and Low-Breton words with Dutch, Low-Saxon, and Low-German terms.

I cannot pass over the accord of some Welsh customs with those of North Holland. In the *Revue des Deux Mondes*, Feb. 15, 1865, M. Esquiroz thus describes the marriage customs of Wales: The same customs, including the "courting in the bed," existed formerly in the Isle of Tessel, under the name of "kweesten," and even now it exists under a somewhat modified form in Holland, north of Amsterdam. The baptism of milk and lime, so dear to the Welsh, exists also as a custom in North Holland, if not generally, at least in the fertile *polders* of Beemster. The lower portion of the walls of houses and of trees is painted white, etc.

It seems to me not to admit of contradiction, that the Germans have crossed the Rhine four or five centuries before our era, and have more or less subjugated the indigenous black-haired population.

\* Observation by the translator (Pruner-Bey). "M. Sasse seems to ignore the fine treatise of his countryman M. Lubach, in which the cranial forms are clearly specified according to the provinces of Holland. Anthropologists who have compared the Neanderthal skull with the Batavian cranium of Blumenbach, look upon both as exceptional. It is, therefore, not astonishing that M. Sasse found nothing like it among the eighty modern crania, possibly German, whilst the two preceding should be considered as ancient and Celtic."

They endeavoured to establish themselves as autocrats, or where they were inferior in number to intermix with the natives who have gradually absorbed them. These Germans have imported into Gaul the fair and nomadic element. Had they been long fixed in Germany? This I venture to doubt. Their appearance in Gaul was perhaps only the distant echo of the migratory movements which commenced in Asia in the fourth century before our era, down to the invasion of the Huns. In Greece I am inclined to date the existence of the Aryan element from the Doric invasion. The primitive population of Greece, as regards at least the Ionian, was perhaps Semitic.

I finally venture to suggest that there exists no impassable gulf between us and the Semitics from a linguistic point of view. There are, properly speaking, but two letters which form the root of trilettered Semitic words, etc. If the Society wishes it, I shall be glad to communicate to it my researches on this subject.

M. Pruner-Bey, in mentioning some of the concordances in the words pointed out by M. Sasse, as regards the Semitic and Aryan languages, observed that they presented nothing new and were too vague to be of value. As to the reductibility of Semitic roots, there exist volumes written on this subject by Meyer, Bunsen, Dietrich, etc. All these linguists have, despite their talent, failed in their attempts.

M. Vogt said that he had, it is true, in his *Lectures on Man*, placed the Dutch crania among the dolichocephalic, and that it was chiefly on the opinion of Welcker that he advanced that the Dutch were the most dolichocephalic people of Europe. It is known that the Island of Marken is peopled by a race which is said to be the oldest in Holland, and which does not intermix with the other races. No one at least will contest the extreme dolichocephaly of the inhabitants of this part.

M. Lagneau: Marken and Schokland are two islands of the Zuyder Zee. The first is situated to the south-west of this internal sea, near the coast of North Holland, not far from Monnikendam. It is said that it was only separated from the continent towards the end of the thirteenth century. The inhabitants, generally fair, are said to be industrious, wearing a peculiar dress, and reach an advanced age without being subject to grave diseases (see *Magasin Pittoresque*, p. 137, 1864). The second is situated east of the Zuyder Zee, opposite to the mouth of the Yssel, near the coast of the province of Over-Yssel. The chief village is Middelbuurt.

*Anthropological Study on the Commune (Parish) of Batz (Loire-inférieure), and the Innocuousness of Consanguineous Marriages.* By Dr. A. Voisin. This paper, which is to be published in the *Mémoires* of

the Society, contains the following conclusions:—The parish of Batz is situated in a peninsula surrounded by rocks, and contains a population of about 3,300, who, like the rest of the inhabitants of this department, have little intercourse with adjoining districts. Their intelligence is much developed; all adults can read, and their behaviour is excellent. All the children are suckled by their mothers. The alimentation is good, and chronic diseases rare. At this time there exist in this parish forty-six unions between relations: five between cousin-germans, thirty-one between the issues of cousin-germans, ten between cousins of the fourth degree. Besides these, there is a large number of marriages between cousins of the fifth and sixth degree. The above forty-six marriages have produced one hundred and seventy-four children, twenty-nine of whom died from acute diseases. All the rest are perfectly well, and, like their parents, of excellent constitution. Two unions proved sterile.

“This study,” adds the author, “has convinced him that consanguinity is by no means injurious to the offspring, provided the father and the mother present no diathesis, no hereditary taint, are of good health, and live in good hygienic and climateric conditions. In such cases consanguinity, so far from being detrimental to the offspring, on the contrary, exalts the qualities, just as it would tend to perpetuate defects and other causes of degeneration.”

M. Dally said that, having lately sojourned for a few days in the island of Brehat (Côtes-du-Nord), he could, from what he saw and heard, confirm the conclusions arrived at by Dr. Voisin.

M. Lagneau then offered some observations on the ethnography of Brehat and Barz, after which the meeting adjourned.

## Correspondence.

### VOGT ON ITALIAN CRANIA.

*To the Editor of the Anthropological Review.*

SIR,—On my return from a voyage, I found on my table the April number of the *Anthropological Review*, containing some strictures which concern me; namely, an article on Italian Anthropology (p. 142) signed J. B. D., and a notice by Dr. H. Wagner (p. 248). I shall first deal with the article, partly written in the name of M. Nicolucci.

I had, as it appears, the misfortune of examining some ancient Italian crania, and to write concerning them a letter to M. Gastaldi, who asked my opinion on a cranium found at Mezzana-Corti, in the alluvium of the Po. This letter is dated January 20, 1866, and relates to observations made in the months of October, November, and De-